

THE
URBAN DISTRICT COUNCIL
OF
WIRKSWORTH.

Der

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE YEAR 1903.

PRINTED BY ORDER OF THE COUNCIL.

J. GRATTON, CLERK.

COPY OF RETURN FROM REGISTRAR-GENERAL
CENSUS, 1901.

COUNTY BOROUGH, MUNICIPAL BOROUGH, OR URBAN DISTRICT.					WIRKSWORTH URBAN DISTRICT.		
Civil Parishes and Wards.	Houses.				Population.		
	Inhabited.	Uninhabited.		Building.	Persons.	Males.	Females.
In Occupation.	Not in Occupation.						
Wirksworth Urban District. Civil Parish. Wirksworth.	907	29	46	2	3807	1821	1986

Rooms in Tenement.	Tenements with less than 4 rooms.		Percentage of Tenements with less than 4 rooms.		Diminution per cent. of Tenements with less than 4 rooms.
	1891 Census.	1901 Census.	1891 Census.	1901 Census.	
1	—	2	—	—	—
2	82	81	25%	19·8%	5·2
3	128	98	—	—	—

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WIRKSWORTH.

To the Chairman and Members of the Wirksworth Urban District Council.

Gentlemen,—

The number of births registered during the year was 99, giving a birth-rate of 25.84 per 1000 population, as compared with 28.6 the average rate for the previous ten years.

The number of deaths registered in the district was 51, giving a death-rate of 13.31 per 1000 population, which is the lowest death-rate in Wirksworth we have on record.

The average death-rate for the last seven years is 16.09 per 1000, as compared with 19.38 per 1000, the average for the preceding seven years. The two highest death-rates in the last fourteen years occurred in 1890 and 1893, both of which years were remarkable for an exceptionally low rainfall, while the lowest death-rate we have experienced occurred in a year that will be remembered as one of the wettest.

Year.	Death-rate.	Rainfall.
1890.....	21.35 per 1000	26.67 inches.
1893.....	23.99 " 	22.77 "
1903.....	13.31 " 	38.32 "

(Average rainfall in Wirksworth, 32.12 inches.)

The lesson to be learnt is the value of municipal cleanliness. We can well understand that by clearing the air, the streets, and the sewers, persistent heavy rains confer a benefit on the public health, and lower the death-rate; but it should not be necessary to wait for a wet Summer to do this for us: rather, we should persistently imitate a wet Summer by flushing the sewers regularly and thoroughly, and by flushing the streets in addition to scraping them. As you are aware, for a longer or shorter period every year there is in your

district a scarcity of water, the supply being hardly adequate for domestic requirements; and an increased water supply, to which I shall refer later in this report, has at the present moment your consideration.

The value of municipal cleanliness is brought home to us in another way. Around many of the dwellings there are accumulations of night-soil, house refuse, and filth, which no rainfall can remedy. The removal of these accumulations in your district devolves upon the householder, and it is a point not only of interest but of importance to note that improvement in the death-rate is in direct relation to the amount of inspection and pressure brought to bear by your Sanitary Inspector.

Years.	Average death-rate per 1000.	Sanitary inspections.
1890-1896.....	19.38	994
1897-1903.....	16.09	3483

In the face of such figures the question is whether the time has not come for the sanitary authority to undertake the systematic scavenging of the district themselves. Your Inspector (Mr. Wintle) has prepared the following estimate of the cost:—

Scavenging the Urban District of Wirksworth.

	Loan.	£	s.	d.
Horse		30	0	0
Covered Scavenging Cart		25	0	0
Harness		5	0	0
Alterations to Yard to be used as Stables		10	0	0
Loan required		£70	0	0

Annual Cost of Scavenging the District.

	£	s.	d.
Scavenger's wages at 24s. per week	62	8	0
Horse keep at 10s. per week	26	0	0
Repairs, Shoeing, &c.	2	10	0
Interest on Loan, spread over 10 years			
at 3½ per cent.	7	4	10
	98	2	10
Set-off.—Use of Horse on Main Roads,			
10 weeks at 36s.	18	0	0
	80	2	10

As a penny rate brings in £40 it appears that a twopenny rate would about cover the cost, and there must be very few ratepayers who would not be in pocket by the Council doing for them what they now do at their own expense.

There were 6 deaths from zymotic diseases (5 from whooping-cough and 1 from diphtheria), yielding a zymotic death-rate of 1.56 per 1000 population. Those who died from whooping-

cough were all children under five years of age, a period of life when this disease is particularly fatal.

For the first time in 23 years there was no death from phthisis. In my last annual report I noted the prevalence of phthisis in the district, and attributed it to the general inadequacy of window ventilation and to the want of through ventilation in many of the houses, the soil against the backs of some houses reaching to the eaves. Your Council circulated a printed handbill of this part of my report, and there has been an improvement. During the year 12 windows were removed and replaced by sash windows, and the soil has been removed from the backs of 4 houses, allowing an open space behind; but there are still many houses with inadequate or no window ventilation. The people are not very fond of fresh air, and in the morning 1 open window in 10 is a fair average.

There were 13 deaths of infants under one year of age, giving a rate of 131.31 per 1000 births, the average for the previous ten years being 120.1. The prevalence of whooping cough accounted for three deaths. The industrial occupations of the women will always account for a certain number of premature births, and consequent deaths, and until mothers grasp the fact that milk is the natural and only proper food for infants under eight months of age, and that more than milk always leads to trouble and often disaster, the mortality of infants from improper feeding will still go on; but to nothing do I look forward to with greater hope than an improvement in the infant mortality from the systematic scavenging of the district by the authority, thereby improving the air in which the infants live.

During the year there were 14 notifications of infectious disease—

Diphtheria	6
Erysipelas	1
Scarlet Fever	7

Four cases of diphtheria and six cases of scarlet fever were removed to the Isolation Hospital at Heage. All the infected houses were disinfected by your Council's officers, rooms were mopped out with corrosive sublimate solution (1 in 1000) and then sulphured, and bedding and clothing were stoved at the Isolation Hospital. As each case of diphtheria and scarlet fever occurred, the Elementary Schools were notified of the fact, and children from infected houses were detained from school. I could trace no connection between the cases of diphtheria, and no two cases had the same milk supply; in all, except one, sanitary defects were found in the houses of the patients, which were remedied under the directions of your Inspector.

There is a steady improvement in the condition of the houses. During the year 20 new

houses were built, and one old house was condemned. All new building was regularly inspected by your Surveyor, and the drainage was tested. Generally speaking, there is more thorough cleanliness about the houses, but in many instances the paving at the back of them is not impervious; three yards were made good in this respect. There has been a marked improvement in house drainage; at 19 houses the drainage was re-modelled and thoroughly tested, and 12 new drains were laid.

Night-soil has been removed by the occupier on an average about five times in the year. At present there are three tipping places in use, viz.: in Water Lane, behind the Lime Kiln Inn, and near the Black Rocks. Ten insanitary privies were made good, and nine privies were converted into water-closets; 185 offensive accumulations were dealt with, 12 legal notices being served by authority.

Five houses were reported for overcrowding, and at four the nuisance was abated.

There is one common lodging-house in the district, which was inspected 10 times. During the year it underwent complete alteration, to the satisfaction of your Surveyor; the ventilation of the sleeping rooms being improved, the number of beds reduced, and the backyard repaved with impervious paving, and the house was thoroughly cleaned throughout. It is well managed.

Two unlicensed houses used for taking lodgers were dealt with by your Council.

There are eight slaughter-houses on the register, which were inspected 23 times, and one notice was served for infringement of byelaws.

There are 39 dairies and cowsheds on the register, which were inspected 74 times, and one notice was served for infringement of byelaws.

There are seven bakehouses on the register, which were inspected 38 times. Two notices were served for sanitary defects, which were remedied. One bakehouse will require your Council's consideration.

Workshops and Workplaces.—There are 27 on the register, which were inspected 38 times. All were found clean and with adequate air space; the ventilation at one has been improved, and all are provided with sanitary conveniences. No wet processes are carried on at any of them. There has been no infectious disease in connection with the workshops and workplaces. Homework is carried on under satisfactory conditions.

Streets.—The mud in Winter and the dust in Summer from the limestone roads would be lessened by the general use of $1\frac{1}{2}$ in. screenings for binding instead of road scrapings. The flushing of the pavements once a week is desirable. The town streets are scavenged every morning by three men. In the Summer a man

might be usefully employed from dinner-time in removing horse dung.

The town is adequately supplied with public water taps. To prevent waste a push-tap was tried, but did not answer. It is proposed to try a lever tap.

Water.—I need not remind you that we are entirely dependent on the rainfall for our water supply. From an interesting statement sent me by Mr. Gibbs, of Bridge House, we learn that the maximum rainfall occurs between September and January.

Average rainfall at Bridge House in each month of the year for the last ten years.

September	3.09 inches.
October	3.61 ..
November	2.98 ..
December	3.83 ..
January	3.17 ..
February	2.36 ..
March	2.60 ..
April	2.22 ..
May	2.00 ..
June	2.12 ..
July	2.72 ..
August	2.97 ..

Our springs are at their highest point between September and January, vegetation and evaporation absorbing the rainfall from April to August.

In the year under notice we had an exceptionally wet Summer, with a temperature below the average (the mean maximum never exceeding 66.5° F.). There was a constant supply of water throughout the year, except between August 1st and 22nd, when the yield of the springs dropped to 3813 gallons per hour, and the water was turned off during the night.

The following are your Water Bailiff's monthly returns of gallons per hour flowing into the reservoir in 1903:—

Month.	Gallons per hour.
January	8487
February	6273
March	8942
April	7749
May	9102
June	6519
July	4296
August	3813
September	7257
October	16,546
November	13,051
December	11,947

From the following rainfall return you will see how immediately the springs vary with the rainfall, showing that there is no storage in the gritstone from which the springs are derived.

Rainfall for the year ending December 31st,
1903, measured at Bridge House.

Month.	Rainy days.	Inches of rain.
January	19	2.59
February	12	1.55
March	17	4.21
April	15	1.48
May	16	3.54
June	9	1.12
July	15	2.26
August	8	5.21
September	18	4.20
October	29	7.42
November	14	2.95
December	21	1.79
	193	38.32

Our usual experience is one of longer or shorter scarcity of water for some months every year, and to meet this your Council are considering the best means of augmenting the supply. Whatever plan is decided on, in one respect we shall not be as well off as before. Hitherto we have been favoured with a water supply direct from the springs, and as there are no new springs, worthy of attention, to be acquired, in some way or other we shall have to put up with stored water. To supply your district with stored water three courses appear to be open to you—

- (1) Storing your own surplus water in the Winter months;
- (2) A supply from the Heanor and Ilkeston Water Board;
- (3) A supply from the Derwent Valley Water Board.

Of the first and third courses it must be said that the water will be gritstone water, while the second course will provide you with limestone water.

With either the second or third course you will have not only the expense of laying considerable lengths of mains outside your district, paying compensation, building a reservoir and buying the water, but also the constant expense of pumping from 100 to 200 feet for all time; while with the first course the water is your own, and will supply the district by gravity.

It seems to me to be a matter requiring sound advice before action is taken, and that it will be a mistake to be your own advisers. We want the best permanent scheme that can be devised, either by a man of undoubted authority or selected by your Council from competitive schemes.

In the meantime, to detect and lessen waste, I would advise the more free use of the Deacon meter both in the town and Bolehill mains.

A statement of the work done by your Sanitary Inspector (Mr. Wintle) will be found appended,

and I wish to take this opportunity of thanking him for his work and assistance.

We are again indebted to Mr. Gibbs, of Bridge House, for the rainfall and temperature records, and your Council, I am sure, will join me in thanking him.

I have the honour to be,

Mr. Chairman and Gentlemen,

Your obedient Servant,

A. E. BROSTER.

Wirksworth,

February 22nd, 1904.

Sanitary Inspector's statement of work:—

Dwellings:

Inspections	476
Unfit for habitation	1
Infected	9
Disinfected	10

Inspections:

Dairies and Cowsheds	74
Slaughter-houses	23
Bakehouses	38
Common Lodging-house	10
Workshops	38

	Informal No- tices.		Legal No- tices.		Nuis- ances abated.
Defective traps and drains	19	...	1	...	19
Drains obstructed	5	...	—	...	5
Insanitary privies and ash- pits	11	...	—	...	10
Conversion of privies into w.c.'s	9	...	—	...	9
Insufficient closet accom- modation	2	...	—	...	2
Surface of courts and yards	3	...	—	...	3
Eaves spouts and down- spouts	2	...	—	...	2
Offensive accumulations	185	...	12	...	185
Animals improperly kept...	—	...	—	...	—
Overcrowding	5	...	—	...	4
Foul condition of houses ...	3	...	—	...	3

Temperature for year ending 31st December,
1903, at Bridge House.

Months.	Mean Max.	Mean Min.	Mean.	High- est.	Low- est.	United Kingdom Mean.
January	42 $\frac{1}{2}$	32 $\frac{1}{2}$	37 $\frac{1}{2}$	56	20	43
February	50	37	45	60	24	46
March	50	36	43	62	28	45
April	50 $\frac{1}{2}$	35	43	60	26	45
May	58	42	50	74	33	51
June	63 $\frac{1}{2}$	45 $\frac{1}{2}$	54 $\frac{1}{2}$	78	36	54
July	66 $\frac{1}{2}$	50 $\frac{1}{2}$	58 $\frac{1}{2}$	83	42	58
August	64	48 $\frac{1}{2}$	56	70	40	57
September ...	62	47 $\frac{1}{2}$	54 $\frac{1}{2}$	70	36	56
October	55 $\frac{1}{2}$	43 $\frac{1}{2}$	49 $\frac{1}{2}$	64	33	52
November ...	48 $\frac{1}{2}$	37	42 $\frac{1}{2}$	54	28	—
December ...	40	33	36 $\frac{1}{2}$	48	24	—

REMARKS.—Thermometer in shade, 4ft. above ground, 500ft. above sea level. Mean temperature, 47 $\frac{1}{2}$; 1 $\frac{1}{4}$ above last year—owing chiefly to the warm Winter.

Rainfall since 1901.

1891	40.66 inches.
1892	28.69 „
1893	22.77 „
1894	29.55 „
1895	32.36 „
1896	32.40 „
1897	35.32 „
1898	29.60 „
1899	32.24 „
1900	40.10 „
1901	32.35 „
1902	29.45 „

12 Years' Total 385.49 „

12 Years' Average ... 32.12 „

REMARKS.—This year's rainfall is 8.87 higher than last year, and 6.20 higher than the average of the last 12 years.

THOMAS GIBBS.